



The Corporation of the City of Courtenay

Staff Report

To: Council

File No.: 7200-20

From: Fire Chief

Date: JUNE 25 2025

Subject: Fire Apparatus Replacement Schedule

PURPOSE:

The purpose of this report is to inform Council of updated Fire Underwriters Survey (FUS) standards for medium-sized communities, and to seek approval for the purchase of two new fire engines in 2028 and endorsement of a 15-year apparatus replacement cycle to maintain compliance and support Courtenay's continued growth.

BACKGROUND:

The Fire Underwriters Survey (FUS) evaluates a municipality's fire protection services, including the age, condition, and performance of its fire apparatus, to establish Public Fire Protection Classifications (PFPC) and Dwelling Protection Grades (DPG). These ratings directly impact local property insurance premiums.

FUS conducts surveys either at the request of the municipality or at the request of subscribing insurance companies seeking updated risk assessments. Evaluations consider multiple factors, including water supply, fire department resources, communications, and fire prevention efforts.

According to the 2021 Census, the population of the City of Courtenay was 28,420. Based on current growth trends and recent estimates, it is anticipated that the City has exceeded the 30,000-population threshold identified by the Fire Underwriters Survey (FUS) for classification as a medium-sized municipality. This is expected to be confirmed through the next national Census, scheduled for completion in May 2026.

FUS awards full grading credit for fire apparatus serving medium sized communities that are 15 years or newer in first-line service. Vehicles aged 16 to 20 years may qualify as reserve apparatus if they remain in excellent mechanical condition and pass National Fire Protection Association (NFPA) service tests. Apparatus older than 20 years generally do not qualify for insurance grading credit unless exceptional circumstances and annual testing are demonstrated.

The City's current 20-year fire apparatus replacement schedule was developed under small-community criteria. Without adjustment, the Courtenay Fire Department will have only one engine eligible for full first-line credit after 2030. This deficiency would significantly reduce creditable apparatus available for grading, increasing the risk of a downgraded fire protection classification and higher insurance premiums for residents and businesses.

Additionally, the 2014 Fire Underwriters Report previously identified that Courtenay's apparatus fleet did not fully meet engine service expectations, a concern that remains unresolved under the current replacement model. The discussion below aims to address this issue and with direction, the City would be making significant moves towards insurance rating improvements.

DISCUSSION:

To align with FUS standards for medium-sized communities and address identified deficiencies, staff recommend revising the fire apparatus replacement schedule to a 15-year cycle. This approach will:

- Maintain full insurance grading credit for front-line fire engines.
- Protect the City's fire protection rating and mitigate potential increases to property insurance premiums.
- Enhance operational reliability and emergency response capacity.

Failure to adopt the recommended changes poses several risks. Without the transition to a 15-year replacement schedule, Courtenay's fleet will fall below the minimum standard for first-line apparatus grading by 2030. This could result in a downgrade of the City's Public Fire Protection Classification, potentially leading to increased property insurance premiums for residents and businesses. Additionally, the continued reliance on aging apparatus may increase the risk of mechanical failure, reduce response efficiency, and result in higher maintenance costs. These consequences could undermine public confidence in the City's emergency services and require reactive spending at a higher cost.

Fire apparatus currently have an industry-standard build time of approximately two years from order to delivery. To ensure timely deployment by 2028, the procurement process must begin in 2026. This lead time underscores the importance of advance planning and Council approval to maintain fire protection service continuity.

Of the two engines proposed for purchase in 2028:

- One is already scheduled for replacement under the current capital plan, as it will reach 20 years of age that year and no longer qualify for insurance grading credit.
- The second engine is recommended to address Courtenay's new classification as a medium-sized community and the associated requirement to maintain multiple front-line engines within the 15-year credit window.

Purchasing the second engine in 2028 will also allow the City to maintain the planned replacement of Engine 10 in 2035 when it reaches 20 years of age. Without this additional purchase, Engine 10 would need to be replaced as early as 2030 in order to retain grading credit.

The proposed schedule offers a proactive and cost-effective approach to maintaining compliance with FUS standards, protecting the City's insurance rating, and supporting Courtenay's ongoing growth.

The table on page three outlines the recommended apparatus replacement schedule:

Apparatus	Year of Purchase	Current Year of Replacement	Proposed Year of Replacement	Next Year of Replacement	Estimated Cost
Engine 15	2008	2028	2028	2043	\$1,400,000
Engine 13 (New)			2028 (new)	2043	1,400,000
Tender 14	2007	2036	2032	2047	650,000
Engine 10	2015	2035	2035	2050	1,600,000
Rescue 71	2009	2037	2035	2050	500,000
Tower 12	2022	2042	2037	2052	3,000,000

Definitions:

Engine: An Engine is the most common fire truck people recognize. It carries water, hoses, and firefighting equipment. It's used to put out fires, especially in buildings and vehicles. Engines also have medical gear for first response and tools for basic rescue.

Tender: A Tender carries a large supply of water to fires in areas that don't have fire hydrants—such as rural or semi-rural zones. It fills up from a hydrant or water source and brings that water to the scene to supply other fire trucks.

Rescue: The Rescue truck carries specialized equipment for technical rescues—such as vehicle accidents, confined space incidents, or rope rescues. It's packed with tools like hydraulic spreaders ("Jaws of Life"), cribbing, air bags, an air cylinder filling station, and rope systems.

Tower: A Tower truck has a large ladder or boom that can extend up to several stories high. Ours includes a bucket at the tip, allowing firefighters to reach upper floors safely. It also has a water nozzle that can be operated from the top of the ladder for fighting fires from above.

FINANCIAL IMPLICATIONS:

The revised replacement strategy involves the procurement of two fire engines in 2028 at an estimated combined cost of \$2.8 million. These purchases would be incorporated into the City's capital planning and financial strategy and mark the transition to a 15-year replacement cycle.

The current 2025–2029 Financial Plan includes:

- \$2,500,000 in the 2026 budget for the purchase replacement engine(s)
 - \$2,000,000 funding from reserve and \$500,000 funded through debt
- \$90,000 in the 2026 budget for the scheduled replacement of a light vehicle (command truck)
 - Funded from reserve

It is anticipated that timing is going to be a challenge with regards to approval, funding and delivery of these units. Given the expected 2-year delivery period authorization to purchase these units should be given in 2026 however cash payment is not required until the units are delivered in 2028. This timing issue will result in the City allocating equipment reserve funds for 2 years which will put the reserve into a deficit position on paper however in reality the funds will not be needed for 2 years leaving the reserve in a cash positive position.

To appropriately authorize this expenditure through the 5-year financial plan, the purchase must be funded in the year initiated (2026) and then this funding is carried forward until the transaction is completed (2028). The 2026 Financial plan will increase the replacement of engines by \$300,000 to reach the desired \$2,800,000 level. This purchase will be funded 100% from the Equipment Reserve. Debt is not being recommended as beyond 2028 the equipment reserve recovers from this purchase and will be in a cash positive position.

Failure to adjust the replacement schedule may result in reduced insurance grading credit beginning in 2030, which could lead to increased property insurance premiums for residents and businesses. In addition, reliance on aging apparatus may result in higher maintenance costs, reduced mechanical reliability, and unplanned capital expenditures if emergency replacements become necessary. Proactive planning helps avoid these risks and ensures stable, predictable financial management aligned with the City's long-term capital goals.

ADMINISTRATIVE IMPLICATIONS:

Capital Planning Adjustments

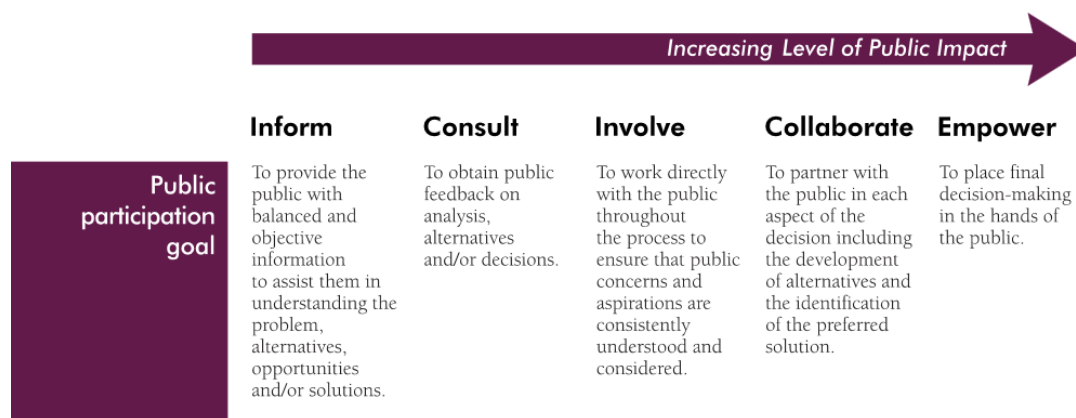
Staff will need to revise the City's long-term capital plan to reflect the updated apparatus replacement schedule, including adjustments to reserve contributions, project timing, and potential impacts on other capital priorities.

Procurement Process Management

Beginning in 2026, staff will initiate a formal procurement process for two custom fire engines, which involves preparing detailed specifications, coordinating with suppliers, issuing and evaluating RFPs or tenders, and securing Council approval for contract awards.

PUBLIC ENGAGEMENT:

Staff would inform the public based on the IAP2 Spectrum of Public Participation:



OPTIONS:

1. THAT Council adopt a 15-year fire apparatus replacement cycle to ensure compliance with Fire Underwriters Survey standards for a medium-sized community.
and;
THAT Council direct staff to incorporate the revised apparatus replacement cycle into the 2026-2030 Financial Plan.
2. THAT Council provide alternative direction to staff.

ATTACHMENTS:

1. Fire Underwriters Survey Technical Bulletin: Insurance Grading Recognitions of Used or Rebuilt Fire Apparatus
2. Apparatus Assessment – Fire Insurance Grade Update Report 2014

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